Application/Control Number: 10/511,448 Page 2

Art Unit: 2629

#### **DETAILED ACTION**

1. The amendment field on 02/18/2009 has been entered and considered by Examiner. In view of amendment Applicant's elect without traverse group IV, claims 10-12 for further consideration.

#### **Priority**

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### **Prior Art**

3. Fig. 62, and 72 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

# Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Application/Control Number: 10/511,448 Page 3

Art Unit: 2629

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 10, 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki (US 6765549) in view of (Tam US Pub No; 202/0021293).

### (1) Regarding claim 10:

Yamazaki teaches an EL display apparatus (1-3) comprising:

a first substrate on which driver transistors are placed in a matrix and that contains a display area including EL elements formed corresponding to the driver transistors (column 7, lines 55-67]); a source driver IC 102 (column 8, lines 58-67);

a first wiring (source line S1) formed on the first substrate located under the source driver IC (i.e. 102); a second wiring (gate lineG1) electrically (throw the transistor) connected to the first wiring (i.e. source line S1) and formed between the source driver IC and the display area; and an anode wiring (anode waring for EL element in Fig. 2) that branches from the second wiring (gate line G2) and applies an anode voltage to pixels in the display area (see the illustration in Fig. 3).

Note that Yamazaki teaches a source driver circuit (102, Fig. 1) and driving transistor, but Yamazaki does not specifically discloses the driver circuit configured to supply programming current to the driver transistors.

However, Tam in the same field of endeavor teaches (in Fig. 6) a driver circuit configured to supply programming current (i.e. programming current for threshold voltage, to the driver transistors [0043] .

Therefore it would have been obvious to one of ordinary skill in the art to incorporate the method of the driving circuit configured to supply programming current to the driver transistor as taught by Tam in to the driving driving circuit of Yamazaki, so the driver circuit could be configured to supply programming current to the driver transistors. In this configuration the system would provide a highly reliable El element with high proficiency data transmission in the El display device.

## (2) Regarding claim 12:

Yamazaki teaches an EL display apparatus (i. Fig. 1-3) comprising:

a display area in which pixels (Pixel portion 101 in Fig. 1) with EL elements are formed in a matrix (column 8, lines 58-67);

driver transistors (i.e. TFTs for EL elements) configured to supply light-emitting current to the EL elements (column 8, lines 58-67);

Note that Yamazaki teaches a source driver circuit (102, Fig. 1) and driving transistor, but Yamazaki does not specifically discloses the driver circuit configured to supply programming current to the driver transistors, wherein the driver transistors are P-channel transistors, and transistors that generate the programming current in the source driver circuit are N-channel transistors.

However, Tam in the same field of endeavor teaches (in Fig. 6) a driver circuit configured to supply programming current (i.e. programming current for threshold voltage, to the driver transistors, wherein the driver transistors are P-channel

Art Unit: 2629

transistors, and transistors that generate the programming current [0043] in the source driver circuit are N-channel transistors ([0037-0039]) (note the illustration in Fig. 6, driving circuit including a complementary pair of driver transistors for providing threshold voltage, se column, [0043], and abstract).

Therefore it would have been obvious to one of ordinary skill in the art to incorporate the method of the driving circuit configured to supply programming current to the driver transistor as taught by Tam in to the driving driving circuit of Yamazaki, so the driver circuit could be configured to supply programming current to the driver transistors, wherein the driver transistors are P-channel transistors, and transistors that generate the programming current in the source driver circuit are N-channel transistors. In this configuration the system would provide a highly reliable El element with high proficiency data transmission in the El display device.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of Tam as applied to claim10 above, and further in view of Miyazima (US Pub. No: 2002/0171086 A1)

#### Regarding claim 11:

Note that Yamazaki teaches a first wiring (i.e. data line or source line), but Yamazaki does not teach the first wiring has a light shielding function.

However, Miyajima in the same field of endeavor teaches a first wiring (i.e. data line) has a light shielding function [0036], [0127].

Therefore, it would have been obvious to a person of ordinary skill in the art to incorporate the method of first wiring (i.e. data line) comprised a light shielding function as taught by Miyajima in to the El display system of Yamazika as modified by Tam so that the first wiring could have a shielding function. In this configuration the system would provide a high quality EL display panel with high resolution and improved reliability (Miyajima, [0004]).

### Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's discloser.

Okuda (US Patent No: 6650060) discloses a pixel driving circuit for light emitting display.

# Inquiry

8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Shaheda Abdin** whose telephone number is (571) 270-1673.

Application/Control Number: 10/511,448

Art Unit: 2629

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard HJerpe** could be reached at (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Page 7

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see <a href="http://pari-direct.uspto.gov">http://pari-direct.uspto.gov</a>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shaheda Abdin

03/19/2009

nssaterns

/Regina Liang/

Primary Examiner, Art Unit 2629